

electrode material (5) and at least one layer (6, 7) laminated to the layer of the electrode material (5) to avoid deterioration of bonding such that the at least one layer (6, 7) has peripheral dimensions substantially the same as or larger than those of the electrode material (5); said process comprising:

adhesive bonding the metal balls to the electrodes with a flux.--

C1 amended
--17. (Amended) A process for producing a semiconductor device to be mounted on a substrate by flip chip bonding comprising electrodes formed on a semiconductor chip, and bumps each consisting of a spherically formed metal ball having a given size, and adhesive bonded to the electrodes (8) for the attachment of the bumps, wherein each electrode (8) includes a layer of an electrode material (5) and at least one layer (6, 7) laminated to the layer of the electrode material (5) to avoid deterioration of bonding such that at least one of the at least one layer (6, 7) has a thickness which is smaller than that of the electrode material (5) and the at least one layer (6, 7) has peripheral dimensions substantially the same as or larger than those of the electrode material (5); said process comprising:

adhesive bonding the metal balls to the electrodes with a flux.--

C2 cont
--20. (Amended) A process for producing a semiconductor device to be mounted on a substrate by flip chip bonding comprising electrodes formed on a

semiconductor chip, and bumps each consisting of a spherically formed metal ball having a given size, and adhesive bonded to the electrodes (8) for the attachment of the bumps, wherein each electrode (8) includes a layer of an electrode material (5) and at least one layer (6, 7) laminated to the layer of the electrode material (5) to avoid deterioration of bonding such that the at least one layer (6, 7) has peripheral dimensions substantially the same as or larger than those of the electrode material (5); said process comprising:

adhesive bonding the metal balls, each metal ball being spherically formed and having the given size, to the electrodes; and

reflowing the metal balls.--

02 unit
--21. (Amended) A process for producing a semiconductor device to be mounted on a substrate by flip chip bonding comprising electrodes formed on a semiconductor chip, and bumps each consisting of a spherically formed metal ball having a given size, and adhesive bonded to the electrodes (8) for the attachment of the bumps, wherein each electrode (8) includes a layer of an electrode material (5) and at least one layer (6, 7) laminated to the layer of the electrode material (5) to avoid deterioration of bonding such that at least one of the at least one layer (6, 7) has a thickness which is smaller than that of the electrode material (5) and the at least one layer (6, 7) has peripheral dimensions substantially the same as or

larger than those of the electrode material (5); said process comprising:

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adhesive bonding the metal balls, each metal ball being spherically formed and having the given size, to the electrodes;

reflowing the metal balls.--
